ABDEEN Square Development
From yesterday to today
First Chapter: “THE ANALYSIS & DECISIONS”
This Project is considered as one of the renovation projects recommended by the revitalization of the Central Zone of Khedive’s Cairo project, one of Egypt’s significant urban areas. This project has been undertaken by Gateway Consultants and under the supervision of the UN Habitat and the General Organization of Physical Planning.

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ABDEEN SQUARE - FIRST REPORT

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INTRODUCTION & HISTORICAL SIGNIFICANCE
2. History

Abdeen Palace, one of the most famous Egyptian palaces and masterpiece that witnessed many events since the monarchy and even after the emergence of modern Cairo. Built on the site of a small mansion owned by Abidin Bey, Abdeen Palace, which is named after him, is considered one of the most sumptuous palaces in the world in terms of its adornments, paintings, and large number of clocks scattered in the parlors and wings, most of which are decorated with pure gold. Built by Khedive Ismail, to become the official government headquarters instead of the Citadel of Cairo (which had been the centre of Egyptian government since the Middle Ages), this palace was used as well for official events and ceremonies.

Construction started in 1863 and continued for 10 years and the palace was officially inaugurated in 1874. Erected on an area of 24 feddans, However, the palace's garden was added in 1921 by Sultan Fuad I on an area of 20 feddans. spent on the palace's alteration, preservation and maintenance by consecutive rulers, The palace today is a museum.
1. Khedivial Cairo

Abdeen Palace was built in 1863 on a 25-feddan area, Khedive Ismail ordered the palace be erected in 1863, and the palace was named after Abdeen Bay, one of the army commander under Mohamed Ali Basha. In 1872, Khedive Ismail moved to Abdeen Palace, Abdeen Palace is a rare historical artifacts in terms of form and content, it reflects the luxurious and sophisticated taste was built by the palace, one of the most important palaces built by the family of Muhammad Ali Pasha of Egypt, and was the seat of government from 1872 until 1952. As it clear, Many changes took place from 1874 till 1888, apart of the palace converted into school in 1898, Then to residential buildings. All these changes affected the space, and have some impacts on it's size lawn area, uses and activities.
SPACE ANALYSIS AND COMPONENTS
ABDEEN SQUARE IN PREVIOUS PLANS

Abdeen square play an important role on the vision of khedivial cairo redevelopment plan which articulated a variant spaces and major squares linked together with green network system and efficient pedestrian friendly network and paths adding to a multi model public transit network strategy.

Abdeen square layout

Source : Khedive's Cairo Competition - first prise
Space Creation of a space which frames the Abdeen Palace and the Cairo Governorate palace. This new design unifies this great rectangular space as a plaza and a park that is geometrically organised along two structuring axes: an axis relates to the great Abdeen Palace, and another that links it to the entrance to the Cairo Governorate. Two more closed and dense garden areas manage to consolidate the view of the Palaces, also providing room for experiencing coolness as well as relaxation and social gathering. New cultural function is proposed to Abdeen Palace, adding to the one in place Master Plan.

Source: Khedive's Cairo Competition - first prise
ABDEEN SQUARE IN PREVIOUS PLANS

Source: Cairo Khedivial Report
ABDEEN SQUARE IN PREVIOUS PLANS

Source: Cairo Khedivial Report
ABDEEN SQUARE IN PREVIOUS PLANS

Source: Cairo Khedivial Report
SURROUNDING URBAN FEATURE

1.1 Touristic Attractions

1.2 Major Open Spaces

Source: Khedive's Cairo Competition - first prise
SURROUNDING URBAN FEATURES

2.1 Main Issues

Over time Cairo has expanded to the East and West of the site.

- The traffic intensity and congestion is persistent at all hours through the day. As a result, the city is suffering from the impacts of this constant traffic dominating the area.

- No clear street signage for way finding.
- From the survey, Square suffering from through traffic giving priorities for vehicles, especially for car parking over pedestrian.
SPACE ANALYSIS
LOCATION AND NEARBY USES

2.1 Walkability

Abdeen square lies in a median location to many main areas. Mostly with a walking distance less than 15 minutes for most of them.

Considering this and looking at the location of the palace (map to the right), Abdeen Square is one of the main destinations to various surrounding landuses.

However, further studies revealed that people do not prefer interacting with the square with surrounding neighbourhoods. Many space users merely passby the space, or live in the residential area along the space edge. The current situation is very dependant on the surrounding uses.

---

400m (5 minute walk)

800m (10 minute walk)

1200m (15 minute walk)
OVERALL ANALYSIS
1. Current Situation

Abdeen Square has very empathic urban walls such as Abdeen Palace and Governorate Building, a simple looking green structure and vehicular circulation.
OVERALL ANALYSIS

2. Space Analysis

Abdeen Square has very empathic urban walls such as Abdeen Palace and Governorate Building, a simple looking green structure and vehicular circulation.
OVERALL ANALYSIS

2. Space Analysis

Abdeen space has a regular form that is considered an easy perceived space with formal walls.
- The space has a direct visual and roads axes from the entrances.
- There are many points of open view to the space.
- Two main focal points and a landmark on the governorate building.
- Green areas are distributed formally to the space but with low accessibility to the public.
- The space overall is considered relatively quiet. However, there are zones that contain more dense activities.
ACTIVITY SITTINGS
1. Activities and Extensions

The institutional use has 50% of the surrounding landuses that include the governorate building and Abdeen palace which is considered a heritage from khedivial Cairo.

25% for groundfloor mixed use such as a traditional cafe and some shops.

10% for the residential and commercial.

5% for mosques.
ACTIVITY SITTINGS

2. Parking Analysis

PARKING TIMING ANALYSIS

- Governmental vehicles
- Daytime
- Evering

Vehicles types and timing

Parking types analysis

<table>
<thead>
<tr>
<th>Parking Type</th>
<th>Parking Lots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal Parking</td>
<td>248</td>
</tr>
<tr>
<td>Informal Parking</td>
<td>131</td>
</tr>
<tr>
<td>Governmental Parking</td>
<td>365</td>
</tr>
<tr>
<td>On street Parking</td>
<td>248</td>
</tr>
</tbody>
</table>

PARKING USES ANALYSIS

- On-street Parking: 248 Parking Lots
- Informal Parking: 131 Parking Lots
- Governmental Parking: 365 Parking Lots
- Restricted Area
- Green Area

ABDEEN SQUARE - FIRST REPORT
ACTIVITY SITTINGS

3. Rates and Desire Lines

The desire lines of pedestrian movement within the space represent the shortest “desired” path of individuals. By analyzing movement patterns, there were heights (vertices) of movement.
PRACTICAL APPROACH & VISION
PRACTICAL APPROACH

1. Vision

From the studies of Abdeen square, some decisions took place, such as:

- Locating main focal point as a landmark for more extroversion exposure to emphasize space radiation in linking corridors.

- Linking the two parts of space with boarders to be treated as a one place.
PRACTICAL APPROACH
2. Approaches To Space

The main theme is to enhance the links to space by on-street parking for a pedestrian movement in specific times at the day.
PRACTICAL APPROACH

3. Design Intent

To create a pedestrian friendly space in Mohamed Fareed street, that fulfills the activity amenities and parking spaces needed with respecting the identity of the built environment.
PRACTICAL APPROACH

3. Design Intent

To create a pedestrian friendly in Algomhureya street by using the on-street parking space that fulfills the activity amenities and parking spaces needed with respecting the identity of the built environment.
CASE STUDY
CASE STUDY

Berlin Cathedral square has been taken as an example of historical space which converted to public space where people can arrange festivals and celebrations. The church is considered a significant node and worthy landmark. The church was replaced by a cathedral, built between 1745 and 1747 in a Baroque design from Johann Boumann. It was remodeled into a classicist building from 1816 to 1822.
SWOT ANALYSIS
SWOT ANALYSIS

**S**
- Clear space from through urban walls
- Relation to landuses surrounding the space
- Strong meaning of the palace and urban space
- Strong connection with circulation around the space and easy accessibility.

**W**
- Some weak and ambiguous urban walls.
- Informal and random space that affects pedestrian of space.
- The lack of safety feeling because of the high traffic congestion.
- Insufficient and weak urban furniture.

**O**
- The ability to connect with surrounding square and city green axes
- Available main parking spaces to solve the parking problems
- Nearby city cultural and entertainment centers that gives significance to the spaces.

**T**
- The lack of opportunities to create pedestrian-safe ambience, due to the strong vehicular connection with the main CBD street network.
ABDEEN

Square
Development

From yesterday
to today
Second Chapter:
“Alternatives”
ALTERNATIVES
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  • First Alternative - Second Option ............................................................................................................. 19
1. First Alternative - First Option

1.1 Layout

The main concept of the alternative is to Minimize the intervention by:
- Keeping the existing road network and solving parking issues by supporting on street parking on space peripheries.
- Create a main path divides garden into two sides .
- Calling back classical formal gardens .
- Linking the two parks .
The main concept of the alternative is to Minimize the intervention by:

- Keeping the existing road network.
- Create a main gathering palza to support social activities.
- Enhancing the visual axis to Abdeen palace by palm trees.
- Calling back classical form gardens.
- Linking the two parks.

1.2 Layout
1. First Alternative

1.3 Main Concept

1.3 Network And Parking

Alternative Strengths

Alternative Weaknesses
Traffic flow problem remains the same. Limited parking lots and access to parking. Vehicles dominance. Separation between the pedestrian movement and space activities.

1.4 Movement

1.5 Activities
2. Second Alternative

2.1 Layout

- The main concept of the alternative is to make abdeen space for pedestrian and social activities by:
  - Preventing vehicle of entering space.
  - Create an intimate ambience by locating wide area of Green with classical forms, pedestrian paths and main space contained fountain in the center.
2. Second Alternative

2.2 Main Concept

2.3 Network And Parking

Alternative Strengths
- pedestrian oriented space
- Very friendly environment for the pedestrian.
- Integrated with uses and activities.

Alternative Weaknesses
- Traffic prohibited through the space
- Increased the flow around the square periphery, thus affecting vehicular space accessibility.

2.4 Movement

2.5 Activities
3. Third Alternative - First Option

3.1 Layout

The main concept of the alternative is to Minimize the intervention by:

- Moderate Intervention.
- Developing avenue by making drop off in front of the palace and continue to the destination [Bab el Khalq].
- Preventing All traffic through space.
3. Third Alternative - First Option

3.2 Main Concept

3.3 Network And Parking

Alternative Strengths
Maximizing parking space
Strengthening visual axis
to Abdeen Palace.
Conserving the existing
main axis along with
additional axes.

Alternative Weaknesses
vehicular dominance
inside the space.
Isolated pedestrian paths
which effects security and
connectivity.
Parking income is hard to
manage.
High cost (infrastructure
interference).

3.4 Movement

3.5 Activities

ABDEEN SQUARE - SECOND REPORT
3. Third Alternative - First Option

3.3 3D shoots
3. Third Alternative - First Option

3.3 3D shots
3. Third Alternative - First Option

3.3 3D shots
3. Third Alternative - Second Option

3.4 Layout

The main concept of the alternative is to Minimize the intervention by:

- Moderate Intervention
- Developing avenue by making drop off in front of the palace and continue to the destination [Bab el Khalq].
- Preventing All traffic through space expect making an off-parking lots linked to the avenue instead of underground parking.
3. Third Alternative - Second Option

3.5 Main Concept

Alternative Strengths

Maximizing parking spaces.
Strengthening visual axis to Abdeen Palace.
Conserving the existing main axis along with additional axes.

Alternative Weaknesses

Vehicular dominance inside the space.
Isolated pedestrian paths which effects security and connectivity.
Parking income is hard to manage.
High cost (infrastructure interference).

3.3 Network And Parking

3.4 Movement

3.5 Activities

ABDEEN SQUARE - SECOND REPORT
3. Third Alternative - Third Option

3.6 Layout

The main concept of the alternative is to Minimize the intervention by:

- **Moderate Intervention.**
- Developing avenue by making drop off in front of the palace and continue to the destination [Bab el Khalq].
- Renovate the existing street network by development the entrance.
- Redesign the two street wings to space with on street parking.
3. Third Alternative - Third Option

3.7 Main Concept

3.3 Network And Parking
Maximizing parking spaces.
Strengthening visual axis to Abdeen Palace.
Conserving the existing main axis along with additional axes.

Alternative Strengths
Vehicular dominance inside the space.
Isolated pedestrian paths which effects security and connectivity.
Parking income is hard to manage.
High cost (infrastructure interference).

Alternative Weaknesses
PREFERRED MASTER PLAN
First Alternative - Second Option

The main concept of the alternative is to minimize the intervention by:

- Keeping the existing road network and redesign the on street parking.
- Create and renovate a main gathering plaza to support social activities.
- Enhancing the visual axis to Abdeen palace by palm trees.
- Calling back classical form gardens.
- Linking the two parks.
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ABDEEN

Square

Development

From yesterday
to today

Final Chapter
"THE DESIGN & CONSTRUCTION"
1 INTRODUCTION

- Design Philosophy
- Design Intent
2-1. Design Philosophy

- The landscape of Abdeen Square confirms and maximizes the exposure of the iconic buildings that surround the space by Confirming strong visual axially and access lines with creating vibrant, socially engaging and healthy Landscape environment that will provide significant benefits to Users and visitors.
1-2. DESIGN INTENT

- Victorian minimalistic design with its straight lines and rectilinear shapes. The design lines are inspired by Khedivial architecture of historic Cairo and the formal gardens of the era. The spaces and green spaces are shaped with clean straight lines for better space definition and recognition. It is a simple design yet very rich in details, the site furniture follows the minimalistic look of design with strong and clear functionality.

- A transition between the fluidity of the pedestrian desire lines moving towards the rigidity and boldness, yet neutral geometry and design of the existing buildings. Enhances the function of space as main space of Cairo Khedivial plan.
2 DESIGN ELEMENTS

- Axiality
- Water features
- Borders
- Access lines
2-1. AXIALITY

- Emphasising the axiality in Abdeen landscape design by creating main vertical visual axis to the Palace that enhance the exposure of palace architecture value, adding to the axis that connects the main approach to Government building.
2-2. Water Features

- Enhancing visitors interactions with the space elements by creating a distinctive experience in the space, and achieving flexibility in use.

- Direction: to enhance the axiality water features strip emphasized the main axis to place gate.

- Location: the intersection of main axis made a distinguish node to locate an iconic water feature of the space.

- Liveliness and usage: Uses an interactive water features allowing users to interact with water streams (in operation case) and fountain space (in non-operation case).

The Perspective shows:

- Main Entrance of Government Building
- Space Main Entrance
- Space Second Entrance
- Water Features
- Seats
2-3. Space Borders

- Facilitate visual perception and enhancing the uses of the space as entrance definition and regulate pedestrian circulations whether users and visitors.

Design Elements

- Enhancing the flexibility of borders uses
- Locating the pedestrian paths and substantiation the visual axiality
- Definition the directions at the night
- Enhancing the space formulation
2-4. Access Lines

- Confirming the pedestrian circulations to and from the buildings and the space by main horizontal access lines that inspired by the desire lines of the space.

- Enhancing the access lines by landscape design.

- Making the pedestrian circulations to and from the buildings easy.

- Access lines are an vital bone of the ongoing circulation.

- The main horizontal access lines is inspired by the desire lines of the space.

- Access Lines

- Design Elements
• Master plan
• 3D shots
• Space typology
The main concept is to Minimize the intervention by:
• Keeping the existing road network and redesign the on-street parking.
• Create and renovate a main gathering plaza to support social activities.
• Enhancing the visual axis to Abdeen Palace by palm trees.
• Calling back classical form gardens.
• Linking the two parks.
3-2. 3D Shots

3D shots that describe:
1- Elements of the design
2- The movement of vehicles
3- Mechanisms movement and its relation with the new design and entrances
4- Design and buildings around it in the morning and evening
The design language along Abdeen Palace space can be divided into four zones:

- Zone 1: open space in front of buildings,
- Zone 2: areas of open green lawns,
- Zone 3: the main plaza,
- Zone 4: colorful ground covers.

The design language of each zone can be easily integrated with the surrounding multiple use of space.
LANDSCAPE CONSTRUCTION

- Hardscape
- Sofetscape
- Lighting
- Details
4-1. Hardscape

- FIRST SHEET
4-1. Hardscapes

- SECOND SHEET
4.1. Hardscape

This drawing is copyrighted. The contractor should coordinate between landscape construction drawings and any discrepancies between the construction drawing and the actual works. Any discrepancies to be reported to us.
4-1. Hardscape

- This design technique with hardscape elements provides unity to the design and a sense of detail without compromising the simplicity of the design.

<table>
<thead>
<tr>
<th>Type</th>
<th>Area</th>
<th>Key</th>
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<tr>
<td>Basalt 100<em>100</em>50</td>
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</tbody>
</table>
4-2. Softscape

- TREES & PALMS

- Roystonea Regia
- Washingtonia Robusta
- Cassia Nodosa
- Delonix regia
4-2. Softscape

• SHRUBS & GROUNDCOVERS

- Strelitzia reginae
- Dodonaea Viscosa
- Lantana Montevidensis
- catharanthus roseus
- Alternanthera ficoidea
- Euryops pectinatus
### PLANTING TABLE

<table>
<thead>
<tr>
<th>No.</th>
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<th>DESCRIPTION</th>
<th>QUANT</th>
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<th>Z</th>
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<tbody>
<tr>
<td>1</td>
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</table>

**Note:**
- For the proper installation and planting of the trees, contractors are required to check all dimensions on site.
- Any discrepancies between the construction drawing and the actual field measurements are to be reported to the site management.
- Contractors are responsible for the final check of all dimensions before works commence.
4-2. Softscape

- FIRST SHEET
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4-2. Softscape

- SECOND SHEET
N.B.
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1424-PL-03

• 4-2. Softscape

- THIRD SHEET
4-3. Lighting

- FIRST SHEET
4-3. Lighting

- SECOND SHEET
4-3. Lighting

- THIRD SHEET
4-3. Lighting

- Lighting Units
- Galala Marble Cladding

Dimensions:
- 3m
- 90 cm
4-4. Details
4-4. Details

- Setting & planting space
4-4. Details

- Setting & planting space
TEAMWORK

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